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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,402	11/24/2003	Max Gmur	104822-50516 (10081 US)	4111
26345	7590	08/11/2005	EXAMINER	
GIBBONS, DEL DEO, DOLAN, GRIFFINGER & VECCHIONE 1 RIVERFRONT PLAZA NEWARK, NJ 07102-5497			CHEA, THORL	
			ART UNIT	PAPER NUMBER
			1752	
DATE MAILED: 08/11/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/720,402

Applicant(s)

GMUR, MAX

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11242003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. The restriction requirement set forth in the previous office action are withdrawn in view of the argument on May 19, 2005. Claims 1-16 are considered on the merit.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The use of the language "predetermined" in claims 1, 7, 8 is indefinite in the absence of providing the mete and bound thereof. See claims 1 line 4, 9; claim 7, page 4, lines 2, 11; claim 8, line 1, 4 6; claim 16, line 3, 7, 9. The term predetermined was held to be indefinite, *Jos. E. Seagram & Sons, Inc. v. Marzall, Comr. Pats.*, 84 USPQ 180 (CAD 1950).

The language in claim 1 (e), claim 7 (a) "which form cavities which have orifice on the rear side of the first wafer and issue into the first microstructure on the front side of the wafers or have a second orifice on the front site of the first wafer, said cavities having incline side walls and a tapered cross section the width of which increase with the distance with respect to the rear side of the water" is unclear. First, the use of the term "first wafers" in plural from is not consistent with the term "first wafer" previously stated. It is unclear as now many wafer is used in the process. Second, it is unclear with respect structural relationship between the "second orifice on the front side of the first wafer" and "the first microstructures on the front side of the wafer". Third, language "which increases with the distance with respect to the rear side of the

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first wafer” is unclear whether it means the distance measuring from the rear side surface of the wafer or otherwise. See this type of limitation in claim 6. The language in claim 1 (k) is unclear with respect to the antecedent basis for “the metal layer”, i.e., the deposited metal layer in (j) or (i). See similar language in claim 7; page 5 “separating the metal layer”. Claim 8, there is no antecedent basis for “the metal layer” in (e). The use of the term “forming” as processing steps in claim 8 (a), (b) renders the claim indefinite in the absence of providing any mean or actual step of forming microstructures. Claim 16 is unclear. First, see the term “providing” in (b) which fail to clearly describe the actual step as how to perform the process. Second, the claim is unclear with respect to the “first mold portion”. Step (a) appears to be the steps of forming a first mold portion, and then use this mold portion than contains a first insert tool in combination with the second portion of the mold to produce the material. However, the claim as presented fails to reflect such processing steps. The claim is therefore appears to be awkward and confusing.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 8-16 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14-16 of U.S. Patent No. 6,764,924. Although the

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conflicting claims are not identical, they are not patentably distinct from each other because the steps of etching said microstructure scope of the claim 15-16, (a) of the US Patent No. 6,764,924 wholly encompasses the scope of claim 8, (a), (b); and the scope of claim 14 of the patent wholly encompasses the scope of the scope of claim 16 claimed in the present claimed invention. The insert tool used in both molding process having similar structure.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tchea *thc*  
August 7, 2005

Thorl Chea  
Primary Examiner  
Art Unit 1752

*Thorl Chea*